

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A refrigerator comprising:
a compressor (1)-for compressing refrigerant;
a first liquid heat exchanger (3)-performing heat exchange between the refrigerant and first liquid heat medium;
an expander (11,12)-expanding the refrigerant;
a second liquid heat exchanger (4)-performing heat exchange between the refrigerant and second liquid heat medium;
an air heat exchanger (6)-performing heat exchange between the refrigerant and air;
a refrigerant flow rate adjuster (8,9)-adjusting refrigerant flow rates in the first liquid heat exchanger-(3), the second liquid heat exchanger (4)-and the air heat exchanger-(6); and
a controller (19)-controlling the refrigerant flow rate adjuster (8,9)-so that the refrigerant flows to the air heat exchanger (6)-at a flow rate not lower than a minimum flow rate (Qs)-which prevents stagnation of the refrigerant in the air heat exchanger (6)-in a situation where the refrigerant is made to flow to both the first liquid heat exchanger (3)-and the air heat exchanger (6)-such that the first liquid heat exchanger and the air heat exchanger operate as condensers.

2. (Currently amended) A refrigerator as claimed in claim 1, wherein
the controller (19)-controls the refrigerant flow rate adjuster (8,9)-so that the refrigerant flows to the air heat exchanger (6)-at a flow rate not lower than a minimum flow rate (Qs) determined on basis of a temperature of outside air where the air heat exchanger (6)-is placed in a situation where the refrigerant is made to flow to both the first liquid heat exchanger (3)-and the air heat exchanger-(6).

3. (Currently amended) A refrigerator as claimed in claim 1, wherein
the controller (19)-controls the refrigerant flow rate adjuster (8,9)-so that the refrigerant flows to the air heat exchanger (6)-at a flow rate not lower than a minimum flow rate (Qs) determined on basis of a temperature of outside air where the air heat exchanger (6)-is placed and a target temperature (Tst)-of the first liquid heat medium that undergoes heat exchange with the

refrigerant in the first liquid heat exchanger-(3), in a situation where the refrigerant is made to flow to both the first liquid heat exchanger (3)-and the air heat exchanger-(6).

4. (Currently amended) A refrigerator as claimed in claim 1, wherein
the controller (49)-controls the refrigerant flow rate adjuster (8, 9)-so that the refrigerant flows to the air heat exchanger (6)-at a flow rate not lower than a minimum flow rate (Q_s) determined on basis of a temperature of outside air where the air heat exchanger (6)-is placed, a target temperature (T_{s1})-of the first liquid heat medium that undergoes heat exchange with the refrigerant in the first liquid heat exchanger-(3), and a temperature-(T_{m1})-of the first liquid heat medium that has undergone the heat exchange with the refrigerant in the first liquid heat exchanger-(3), in a situation where the refrigerant is made to flow to both the first liquid heat exchanger (3)-and the air heat exchanger-(6).

5. (New) A refrigerator comprising:
a compressor for compressing refrigerant;
a first liquid heat exchanger performing heat exchange between the refrigerant and first liquid heat medium;
an expander expanding the refrigerant;
a second liquid heat exchanger performing heat exchange between the refrigerant and second liquid heat medium;
an air heat exchanger performing heat exchange between the refrigerant and air;
a refrigerant flow rate adjuster adjusting refrigerant flow rates in the first liquid heat exchanger, the second liquid heat exchanger and the air heat exchanger; and
a controller controlling the refrigerant flow rate adjuster so that the refrigerant flows to the air heat exchanger at a flow rate not lower than a minimum flow rate which prevents stagnation of the refrigerant in the air heat exchanger on basis of a temperature of outside air where the air heat exchanger is placed in a situation where the refrigerant is made to flow to both the first liquid heat exchanger and the air heat exchanger.

6. (New) A refrigerator as claimed in claim 5, wherein

the controller controls the refrigerant flow rate adjuster so that the refrigerant flows to the air heat exchanger at a flow rate not lower than a minimum flow rate determined on basis of a temperature of outside air where the air heat exchanger is placed and a target temperature of the first liquid heat medium that undergoes heat exchange with the refrigerant in the first liquid heat exchanger, in a situation where the refrigerant is made to flow to both the first liquid heat exchanger and the air heat exchanger.

7. (New) A refrigerator as claimed in claim 5, wherein

the controller controls the refrigerant flow rate adjuster so that the refrigerant flows to the air heat exchanger at a flow rate not lower than a minimum flow rate determined on basis of a temperature of outside air where the air heat exchanger is placed, a target temperature of the first liquid heat medium that undergoes heat exchange with the refrigerant in the first liquid heat exchanger, and a temperature of the first liquid heat medium that has undergone the heat exchange with the refrigerant in the first liquid heat exchanger, in a situation where the refrigerant is made to flow to both the first liquid heat exchanger and the air heat exchanger.

8. (New) A refrigerator as claimed in claim 1, wherein

the first liquid heat exchanger and the air heat exchanger operate in parallel such that the first liquid heat exchanger and the air heat exchanger operate as condensers.